Appendix I

Technical Memorandum Recommendations for Stormwater Regulations and Programs

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This memorandum summarizes the findings of Task 3, as described in the scope for Part 2 of the Stormwater Management Study. These findings clarify and augment the Stormwater Policy Advisory Committee's recommended improvements to existing stormwater regulations and programs, as initially put forth in the Stormwater Management Study Final Interim Report to the Washington State Legislature (December 2000). This memorandum includes a summary of additional research and analysis conducted under Tasks 1, 2, and 3, input from the Stormwater Management Study Steering Committee, and new and / or revised policy statements and recommendations.

Policy statements and recommendations are organized in this memorandum within the four themes presented in the Final Interim Report to the Washington State Legislature: (1) Management Coordination; (2) Effectiveness; (3) Costs and Funding; and (4) Technical Assistance, Outreach, and Education. These new or revised policy statements and recommendations will update the Final Interim Report and be incorporated into the Final Report. To this end, the new policy statements and recommendations have been numbered to match the system and format of the Final Interim Report.

Management Coordination

Background

Stormwater management coordination processes and institutional structures in other parts of the United States were reviewed. Several state or regional programs were identified that either address stormwater specifically or address stormwater as one component of an overall approach to water quality management. These programs each had a unique approach to handle multiple regulations and cross-jurisdictional issues. A brief summary of several of these programs follows.

Regional Strategy for Managing Stormwater Quality in North Central Texas – North Central Texas Council of Governments

Since 1989, the North Central Texas Council of Governments (NCTCOG) has worked with the seven largest cities and two Texas Department of Transportation (TxDOT) districts in the region to develop and implement a regional strategy to address the effects of the National Pollutant Discharge Elimination System (NPDES) Phase 1 requirements. An expanded, watershed-based, regional effort is now under way to include the additional cities and counties in the Dallas-Fort Worth Metroplex's urbanized areas that are impacted by NPDES Phase 2 requirements, Total Maximum Daily Loads (TMDLs), and drinking water source protection initiatives by state and federal agencies. NCTCOG has created the Regional Storm Water Management Coordinating Council (Coordinating Council), an advisory body composed of local government officials. The Coordinating Council adopted a policy position on managing urban stormwater quality that states: "The agencies within the urbanized areas of this region are committed to implementing a cooperative and comprehensive program to manage stormwater runoff to maximize the utilization of the region's lakes, streams and rivers for drinking water supply, recreation, fish and wildlife habitat, and economic opportunity."

The Coordinating Council's regional strategy encourages cooperation among participants in the program through a series of initiatives that aim to facilitate compliance with all applicable federal and state water quality regulations. These initiatives are:

- Public education
- Control of construction site stormwater runoff
- Management of stormwater impacts associated with development
- Illicit discharge detection and elimination
- Municipal pollution prevention
- Regional cooperative monitoring

California Stormwater Quality Task Force

The California Stormwater Quality Task Force, formed in 1989 to assist the State Water Resources Control Board in implementing the NPDES Stormwater Program, has been formally commissioned as the principal advisory body to the state on stormwater quality program issues. The Task Force is composed primarily of agencies, organizations, and individuals responsible for and/or interested in the implementation of municipal stormwater management programs in California.

The Task Force recommends objectives and procedures for stormwater discharge control programs that:

- Are technically and economically feasible
- Provide significant environmental benefits and protect beneficial uses of receiving waters
- Promote the advancement of stormwater management technology

- Effect compliance with state and federal laws, regulations, and policies

The Task Force maintains various committees and work groups focused on various stormwater management regulations and programs.

California Watershed Management Initiative – State Water Resources Control Board/Regional Water Quality Control Boards

The State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs) provide water resource protection, enhancement, and restoration while balancing economic and environmental impacts using an integrated planning approach called the Watershed Management Initiative (WMI). In the past, specific issues affecting watersheds were addressed by separate regulatory actions, resulting in a "patchwork" approach. The WMI is a new way of doing business that allows for effective coordination among a variety of agency and stakeholder interests to simplify compliance with regulatory requirements without compromising environmental protection. A major aim of the WMI is to coordinate existing regulatory activities on a watershed-wide scale, ensuring that problems are addressed efficiently and cost-effectively. The main ideas that define the WMI and distinguish it from previous efforts are as follow:

- Water resource problems are identified and prioritized primarily on the basis of water quality within individual watersheds. Unique solutions are developed for each watershed that consider all local conditions and pollution sources and rely on the input and involvement of local stakeholders.

- The WMI will lead to better coordination of existing efforts to regulate point source problems along with efforts to address the challenges from the threat of nonpoint source pollution. This involves establishing working relationships between staff who previously worked only within a single program.

- The RWQCBs work collaboratively with local stakeholder groups. In conjunction with the SWRCB, they attempt to coordinate the actions of governmental agencies and programs to best assist the local groups. Better coordination of the many overlapping state and federal activities, especially those involving regulations and funding, is critical to the success of local watershed groups.

The SWRCB and RWQCBs, in partnership with the U.S. Environmental Protection Agency (EPA), have developed an integrated planning process to more effectively and efficiently direct the limited state and federal funds to the highest priority activities. Statewide priorities are developed collaboratively by the SWRCB, EPA, and the RWQCBs.

The initial focus of the WMI has been on development of the watershed management strategies by each of the RWQCBs. Unique strategies that

consider the local conditions and pollution sources have been developed for each priority watershed.

The WMI is not considered to be an SWRCB program; rather, it is an effort to coordinate the activities of the existing SWRCB programs to better support watershed management programs. Existing watershed management programs include water quality standards, basin planning, core regulatory activities (e.g., NPDES permits), nonpoint source pollution, monitoring and assessment, and TMDLs.

The fiscal year (FY) 1998-99 and FY 1999-00 State budgets included funding for 10 WMI Coordinators to carry out the WMI. There is one WMI Coordinator at each of the nine Regional Boards and one at the State Board. Proposed state funding for FY 2000-01 would make these WMI Coordinator positions permanent. The main task of the WMI Coordinators is working with local watershed groups and serving them as a liaison with the RWQCB. Other tasks of the WMI Coordinators include preparing the WMI Integrated Plan Chapters and coordinating with other state, federal, and local agencies on watershed-specific issues.

Los Angeles County Watershed Management Division

The Los Angeles County Department of Public Works created the Watershed Management Division in August 2000, with the following functions:

- Generating partnerships and coalitions among diverse watershed management entities to facilitate project and program coordination and optimize use of available resources
- Organizing geographic watershed teams of local leadership that might include, but not be limited to, cities, citizens' groups, conservancies, professional / business organizations, industry, and government agencies to establish watershed management priorities
- Conducting and sponsoring research in collaboration with educational / professional institutions
- Establishing a forum to disseminate information to constituents, stakeholders, and other governmental agencies on watershed management best practices, issues, and trends
- Promoting legislation and policies that support watershed management priorities
- Providing assistance to secure funding for watershed management priorities

Policy Statements and Recommendations

The models from other states provide useful reference points for Washington State. Based on these new findings, and the

recommendations of the SWPAC and Steering Committee, the following are new or revised recommendations under the Management Coordination theme.

Policy Statement M-1:
Washington needs to clarify a collaborative stormwater leadership structure, herein referenced as the "Coordination Team."

New Recommendation M-1-A (to be inserted before existing M-1-A, which will become M-1-B):
The Coordination Team will be convened by Ecology and report to the Joint Cabinet. The Stormwater Policy Advisory Committee (or another broadly representative body) would act as an advisory group to the Coordination Team.

Ecology would sponsor stormwater issues of inter-agency interest and bring them to the Coordination Team for consideration and action. The Coordination Team would work with the agencies to integrate multiple stormwater-related regulations and programs. This integration should proceed through a series of ongoing feedback cycles with the regulating agencies and other stormwater-related stakeholders to achieve mutually desired outcomes. The Coordination Team should ensure that the relevant federal agencies endorse the resulting decisions.

The Stormwater Policy Advisory Committee (SWPAC) is scheduled to complete its work and be disbanded by June 30, 2001. Depending on the availability of continuing funding for this group (or another similar, broad stakeholder-based group), it would continue to meet and provide recommendations to the Coordination Team.

A Washington Senate bill passed during the 2001 legislative session, S. 5765, proposes a streamlined approach to environmental permit decision-making. Although the bill is intended primarily to benefit transportation projects, it proposes a permit efficiency and accountability committee that has a purpose similar to the stated purpose of the Coordination Team. This committee would include state agencies, public and private sector interests, and Indian tribes, and is intended to explore opportunities to streamline the permit process, work cooperatively to establish common goals, maximize environmental benefits through coordinated investment strategies, and eliminate duplicative processes.

The Coordination Team should use the NCTCOG and the California Stormwater Quality Task Force as models of regional and statewide cooperative advisory groups on stormwater program issues. These coordination groups provide advisory roles to local governments and make recommendations for compliance with multiple stormwater-related regulations. The structure and experience of these groups could help Washington stormwater management-related stakeholders form the Coordination Team.

Policy Statement M-2:
As the Coordination Team, stormwater management-related stakeholders need to coordinate operational policy and implementation among state agencies, and among state agencies and regional and local entities.

New Recommendation M-2-B: (to be inserted before existing M-2-B, which will become M-2-G)
The Coordination Team needs to create a streamlined permitting & consultation process that addresses CWA, CZM, ESA, SDWA, and state requirements (HPA, SEPA, GMA) for stormwater project elements.

Several regulatory programs are currently working to integrate stormwater program requirements. Effective coordination in this direction will result in clarified regulations, streamlined permitting processes, and increased compliance with multiple stormwater regulations. The Coordination Team should oversee the integration of regulatory requirements with Washington's Department of Ecology (Ecology), Department of Transportation (WSDOT), Department of Fish and Wildlife (WDFW) and Office of Community Development (OCD). This oversight would facilitate inter-agency efforts to reduce redundant and / or conflicting stormwater management requirements, and ease compliance with multiple stormwater-related regulations and programs.

New Recommendation M-2-C: (to be inserted before existing M-2-B, which will become M-2-G)
The Coordination Team needs to promote watershed planning approaches that connect stormwater-related regulations and programs with GMA and land use planning programs.

Watershed planning can be an effective tool to meet a variety of water resource objectives, including compliance with multiple stormwater-related regulations. Integration of land use planning and watershed planning can result in preventive approaches to reducing harmful stormwater discharges, reducing nonpoint source pollution, and protecting aquatic resources. The Coordination Team should ensure that communities planning under the Growth Management Act (GMA) and other jurisdictions consider land use techniques (e.g., low-impact development practices) that provide multiple benefits to meet growth management and watershed protection goals and that comply with stormwater management requirements.

The Coordination Team should incorporate the experience of the California Watershed Management Initiative and the Los Angeles County Watershed Management Division as models of coordination of regulatory activities on a watershed-wide scale. These two examples of statewide and regional approaches to water quality issues demonstrate how stakeholders within individual watersheds can collaborate to develop local solutions to water resources problems, considering the appropriate

issues and incorporating the concerns of the full range of relevant stakeholders.

New Recommendation M-2-D: (to be inserted before existing M-2-B, which will become M-2-G)
Stormwater program owners need to articulate and coordinate their future program visions with other agencies and stakeholders.

Regulatory program "owners" should seek opportunities to establish stormwater management efficiencies by identifying or establishing common goals with other agencies or jurisdictions. For example, NPDES, TMDLs, and 401 certifications all have the common goals of meeting water quality standards and preventing harmful stormwater discharges to surface waters. Regulatory agencies such as Ecology, WDFW, and the OCD can benefit both internally and externally by working with other agencies to develop coordinated programs to respond to stormwater management regulations. Jointly establishing goals that are consistent among programs would ensure that compliance with stormwater regulations meets the objectives of multiple programs.

New Recommendation M-2-E: (to be inserted before existing M-2-B, which will become M-2-G)
Needs of stormwater program customers (e.g., permits, compliance with multiple regulations) should be coordinated to simplify submittal and certification processes.

Coordination of stormwater management goals and programs among regulatory program owners will benefit the various stormwater program "customers" by providing clarification and streamlining of regulatory requirements.

New Recommendation M-2-F: (to be inserted before existing M-2-B, which will become M-2-G)
The Coordination Team needs to consider and use the results of this Study in other forums, where appropriate.

Many planning and policy documents address stormwater management, including Ecology's proposed *Stormwater Management Manual for Western Washington*, the *Puget Sound Water Quality Management Plan*, and the *Statewide Strategy to Recover Salmon*. Future revisions to these documents, and any other future manuals or plans (such as the Ecology *Stormwater Management Manual for Eastern Washington*) should incorporate and reference the recommendations of this Study.

Policy Statement M-3:
Washington stormwater management-related regulatory agencies need to work toward achieving consistency in policy and implementation with federal regulations.

Revised Recommendation M-3-A:

Washington regulators need to integrate and coordinate stormwater management and compliance with the ESA, CWA, SDWA, and other federal regulations.

The greatest concerns are about the current requirements of the Endangered Species Act (ESA), the pending NPDES Phase 2 stormwater permits, Underground Injection Control (UIC) requirements for stormwater dry wells, and TMDL-setting in Washington. These are viewed as the issues of greatest uncertainty, potential risk and liability, and unknown cost.

Requirements of these federal regulations have common goals, and it is possible to coordinate the responses to these regulations at the state and federal levels to create efficiencies and reduce redundancies. For example, Ecology and the National Marine Fisheries Service (NMFS) could coordinate stormwater program requirements in Washington to meet the objectives of the CWA and ESA. WDFW has the opportunity to work with NMFS to achieve efficiency in the Hydraulic Project Approval (HPA) permitting process with a Habitat Conservation Plan (HCP) or other similar mechanism to protect individual projects or activities from ESA liability.

Senior management in Ecology, WSDOT and WSDFW should actively support development of transportation case studies using individual WSDOT projects to develop and test integrated approaches.

New Recommendation M-3-D:
The Coordination Team needs to develop policy for alternative mitigation and environmental credit trading that integrates federal and state regulatory requirements.

Based on the findings of this study, we know that:

1. State and Federal laws and public interest demand that stormwater be managed to reduce or eliminate pollutants and to reduce or eliminate impacts related to altered stream flows.
2. The listing of salmon under ESA increases this imperative.
3. Constrained space and extreme cost of land in urban areas make stormwater mitigation projects very expensive.
4. On-site mitigation of stormwater in highly urban areas using conventional practices has marginal effectiveness.
5. The legal and public expectations for clean water and healthy aquatic systems are not likely to go away but rather, are more likely to be increased in the future.
6. Therefore, the alternative of reducing or delaying stormwater management requirements is not likely an acceptable approach.

7. Simply refining permit processes or re-assigning permit review responsibilities will not solve these underlying issues.

8. Therefore, coordination must focus on alternative approaches to reduce stormwater impacts of pollution and altered streamflows. The only means of accomplishing this are to reduce alterations to the natural environment or to provide mitigation more efficiently through a watershed scale approach. In other words, the only way to improve the regulatory situation for transportation or other development projects in urban areas is to provide stormwater mitigation in a better way: better net environmental benefit, with certainty, more timely and more cost efficiently. This can be done effectively by addressing the issues at a watershed rather than a site scale. This requires the completion of comprehensive watershed plans that address existing development and future growth and identify mitigation necessary to achieve appropriate water quality and stream flow performance measures.

To accomplish goals of regulatory compliance and resource protection, enhancement, and restoration on a watershed basis, innovative mitigation strategies such as offsite and out-of-kind mitigation (i.e., alternative mitigation) and mitigation banking and credit trading must be incorporated into state and federal regulatory policy. These strategies provide opportunities for new funding and partnerships to make projects that have already been identified as watershed and regional priorities become reality. Watershed planning and prioritization processes provide the guidelines for such strategies, which allow significant local input. Focusing mitigation efforts allows economies of scale to be achieved through pooling of funding sources and bundling of mitigation credits (at a minimum), while credit banking provides market incentives and achievement of long-range plans.

Senior management in Ecology, WSDOT and WSDFW should actively support development of case studies using individual WSDOT projects to develop and test wateshed based approaches to mitigation.

Effectiveness

The measurement of stormwater management effectiveness should be based on well-thought-out performance measures. This process of identifying and adopting performance measures is best done on a watershed basis, in conjunction with ongoing watershed management projects and in the context of regional efforts and considerations. Individuals and organizations with interests in the watershed must provide input to these performance measures, to ensure that the measures are both suitable for the watershed and are likely to be honored by those who reside within the watershed. Once performance measures are identified on a watershed scale, alternative means of achieving them can be identified. This may mean a wide range of alternative approaches

such as construction of regional treatment and detention facilities or purchase of development rights for wetlands, headwater areas or riparian corridors.

The limited effectiveness of stormwater mitigation efforts has been documented under selected conditions and in selected locations due to the difficulty of controlling for the rapid land use changes common in the United States. The literature shows that stormwater facilities are capable of removing certain percentages of pollutants under ideal circumstances or of reducing certain peak flows. Regulatory mitigation activities (other than avoidance) have shown dubious success since their use increased in the 1980s, whether air, water, or wetland impacts are involved. In particular, the small size of replacement mitigation habitats and the lack of ability to track permitted projects to determine achievement of success criteria and to apply adaptive management has hampered attainment of mitigation goals. Onsite mitigation requirements have led to "constructed systems," which no longer have the system conditions necessary to sustain the ecosystems and have no long-term maintenance provider.

In contrast, ecosystem protection and credit trading programs have documented successful control and avoidance of impacts, particularly for air and wetland banking programs (which have the longest history), but also for special status habitat. One of the largest challenges to these programs is reaching agreement among owners, users, regulators, and stakeholders with regard to the crediting systems used to address issues of risk, uncertainty, time delays in implementation and achievement of success, and equivalency of value and function. Because this can pose a large initial hurdle to implementing any banking program, it would be prudent for Washington to develop policy now in order to allow early development of alternative mitigation and credit trading projects.

Policy Statement E-2:
Washington stormwater management-related stakeholders need to establish performance measures that document success at achieving the program goals established in Effectiveness policy statement E-1.

New Recommendation E-2-C:
Performance measures should be coordinated according to program goals set on a watershed basis by local planning groups (within the context of meeting State and Federal requirements).

Watershed planning efforts should include local considerations for appropriate stormwater program components to respond to state and federal regulatory requirements. These performance measures would be used to determine the effectiveness of stormwater management programs and will be included in watershed plans and local regulatory compliance actions. Watershed-specific monitoring protocols and schedules, and adaptive management strategies will also be developed during local watershed planning activities.

New Recommendation E-2-D:

Develop guidance for methods to set equivalencies & measurements of equivalency attainment for alternative mitigation and environmental credit trading.

Models are available for each of the media and parameters (air, wetlands, water, habitat) that have been used as a basis for evaluation of mitigation alternatives and credit banking / trading. For example, Washington has policy and guidance for air and wetlands banking. Trading in water parameters (also called "pollutant credit trading") is occurring in more than a dozen states, with a wide range of equivalency models and rules. Habitat equivalencies have been set using the U.S. Fish and Wildlife Service "Habitat Equivalency Model" (HEP) for more than 20 years. And, as additional states have adopted "net environmental benefit" concepts (e.g., Arizona and California), policy and guidance for cross- and multi-parameter and media comparisons have been developed in these states. This recommendation addresses the need for Washington to develop such policies and guidance.

Costs and Funding

Additional information on costs and funding of stormwater management collected and detailed in Task 3 included:

- Review of WSDOT costs and benefits analysis (summarized under New Recommendation C-1-B, below)
- Analysis of alternative mitigation and environmental credit trading costs and funding implications (summarized under Revised Recommendation C-2-B)
- Stormwater management "business plan" outline (see the following)

I. Executive Summary
II. Introduction and Objectives
III. Stormwater Cost Summary and Valuation
    A. Current Process and Priorities for Investment
    B. Current Distribution of Costs
    C. Risk and Uncertainty
IV. Stormwater Benefits Summary and Valuation
    A. Current Distribution of Benefits
    B. Risk and Uncertainty
V. Cost:Benefit Analysis
VI. Stormwater Funding
    A. Current Sources and Their Relationship to Cost Distribution
    B. Potential Sources of Funding
        i. Property Tax
        ii. Stormwater Utilities
        iii. Impact Fees
        iv. Grants from Non-profit Organizations

Revised Policy Statement C-1:
Washington needs to identify total costs and benefits of stormwater management activities.

New Recommendation C-1-B (to be inserted before existing C-1-B, which will become C-1-C):
The results of the WSDOT stormwater cost survey, cost analysis for the updated Stormwater Management Manual, and stormwater benefits analysis should be reviewed for use by Washington stormwater-related stakeholders.

A stormwater cost survey report, sponsored by WSDOT, will be completed in June 2001. This report, based on a literature survey, will provide information on stormwater management facility construction costs, maintenance and operations costs, and erosion and sedimentation control costs from various sources.

A cost analysis for the draft Ecology *Stormwater Management Manual for Western Washington* will also be completed in June 2001. The preliminary results of this analysis indicate a significant increase in stormwater management costs resulting from implementation of the policies and requirements presented in the new manual. This report will provide information for stormwater management programs to estimate the costs of stormwater treatment as required by the new manual.

WSDOT is also developing stormwater cost function models that can be used for stormwater management planning and stormwater benefit models that can be used to estimate the benefits of stormwater management. Both of these products are scheduled to be available in August 2001.

Policy Statement C-2:
In recognition that stormwater program funding is not a one-time investment, and to address currently inadequate funding levels, the State needs to identify available funding options, with consideration of overall cost and opportunities for prioritizing investments, incentives, and leveraging multiple funding sources.

Revised Recommendation C-2-B:

Examine ways to use existing funding and develop new potential sources of funding that are needed, including mitigation banking and credit marketing.

Environmental credit trading / marketing and use of a bank for long-term investment create pathways for money to flow from those entities that require or desire credits to those entities that can affect the desired habitat removal, transformation, or creation. The efficiencies gained through watershed-level planning and design, project scaling, contract maintenance and monitoring, and centralizing recordkeeping and administration are incentives for those in the market to participate and support locally and regionally prioritized projects. In some watersheds, there will be limited opportunity, even at this level, to accomplish mitigation goals because of the inherent characteristics of the watershed. However, in most watersheds, lowering the overall costs is likely to make more money available for more projects, and it might attract funding from out-of-watershed sources of a benevolent or speculative nature.

Technical Assistance, Education, and Outreach

Additional information on stormwater technical assistance, education, and outreach programs was collected and analyzed under Tasks 1 and 2. Descriptions of the available technical assistance and education and outreach materials for individual stormwater programs are summarized in the stormwater program summaries prepared as Technical Memorandum for Tasks 1 and 2. The following new recommendations are based on these findings.

Revised Policy Statement T-1:

Stormwater management-related agencies need to provide technical assistance for stormwater program development and implementation at the regional and local levels.

New Recommendation T-1-B:

Dedicated staff positions for technical assistance should be created and shared among agencies and watersheds in Northwest Washington, Southwest Washington, and Eastern Washington.

Individual stormwater programs have dedicated staff for program development, implementation, and compliance activities, but the number of staff available to provide technical assistance is limited. Technical assistance staff were partially funded for implementation of the Puget Sound Plan and watershed planning by ESHB 2514, but there is a need for technical assistance on the full range of statewide stormwater management requirements.

Sharing technical assistance staff across agencies and programs in a watershed-based structure would increase efficiency and reduce program implementation costs. Training technical assistance staff in multiple program areas would potentially eliminate duplicate staff needs in

separate agencies, and would provide consistent technical assistance staff contacts for stakeholders who are implementing stormwater management programs. A regional technical assistance staff structure would draw on multiple funding sources, including the various stormwater-related agencies, and would function as a clearinghouse of information for agencies and jurisdictions. If funding were provided, the staff could be provided by state agencies or through a consortium of local agencies under an Interlocal Agreement. Either way, the positions could be agency or consultant staff.

Policy Statement T-2:
Washington stormwater management-related stakeholders need to develop a coordinated education program to inform stakeholders and to build community understanding of stormwater management.

New Recommendation T-2-A (to be inserted before existing T-2-A, which will become T-2-B):
A comprehensive Stormwater Communications Plan can improve understanding and lead to sharing knowledge on stormwater issues.

A Stormwater Communications Plan will provide concise and updated information on stormwater policies and issues to stakeholders and will promote stormwater awareness. The Stormwater Communications Plan will define public outreach objectives, identify target audiences, develop materials for those audiences, and distribute the outreach materials to the appropriate audiences.

Implementation of the Stormwater Communications Plan will have the following potential benefits:

- Educate policy makers on stormwater problems and issues
- Educate residential and commercial property owners about stormwater management methods
- Create marketing tools about stormwater to change behavior
- Promote natural resources stewardship by empowering citizens to think about stormwater practices and implications
- Promote more sensitive landscaping to reduce stormwater runoff
- Educate consumers about pollution prevention
- Encourage a sense of community by promoting the need to protect rivers and streams
- Ensure that proper stormwater management approaches are taken

The Stormwater Communications Plan can take advantage of the vast amount of public information and outreach materials that are available nationally and locally. New materials can be generated to complement those materials that are already available.

Specific messages can be tailored to reach a variety of stakeholder audiences, including:

- Elected officials
- State agencies
- Local jurisdictions
- Business, industry, and commercial interests
- Nonprofit groups
- General public

Once specific target audiences are identified, the appropriate communications materials can be developed and distributed. The following recommendations should not be implemented until the Stormwater Communications Plan is completed so investments in training and educational efforts are targeted, focused and effective.

Revised Recommendation T-2-B (formerly T-2-A):
State and regional/local agencies need to develop a modular Stormwater Training Program together to help implement the Stormwater Communications Plan, deliver specific information to target audiences identified in the Stormwater Communications Plan, and build community understanding of stormwater management.

A training program should be developed in conjunction with the Stormwater Communications Plan to meet the outreach objectives and to reach the target audiences as specified in the Stormwater Communications Plan. Potential training methods can include workshops, web-based learning modules, videos, guidance documents, and "train-the-trainer" approaches.

Potential training modules could include:

- Overview of stormwater issues in Washington for a general audience
- "What you can do to prevent stormwater pollution": a citizen's guide
- Summary of recommendations from the Stormwater Management Study
- Specific modules for stormwater regulatory program "owners"
- Guidance on operation and maintenance of stormwater facilities and practices
- Guidance on stormwater operations and maintenance for municipal operations
- Stormwater education and training for students to increase awareness of the issues
- Overview of non-capital solutions for managing stormwater

New Recommendation T-2-D:
Educational programs need to include an introduction to alternative mitigation and environmental credit trading processes and resources.

The modular training program and Communications Plan should present information about the opportunities for alternative mitigation and environmental credit trading, the history of these approaches, and

Washington policy and guidance regarding these approaches. The benefits, challenges, and pitfalls of these approaches will be covered. National and Washington sources of information will be provided so that interested parties can learn more of the details about the various approaches that have been applied.